

WHAT IS CLAIMED IS

1. An image compression apparatus comprising:
a code size setting unit to set one or more code sizes;
a compressing unit to compress an image that is divided into a plurality of image quality levels in accordance with the code sizes; and
a code generating unit to generate code being dividable into each code size.
2. The image compression apparatus as claimed in claim 1, wherein the image quality level is a layer.
3. The image compression apparatus as claimed in claim 1, further comprising:
a reference value setting unit to set a reference value corresponding to each code size.
4. The image compression apparatus as claimed in claim 3, wherein the reference value is the type of a transmission line.
5. The image compression apparatus as claimed in claim 3, wherein the reference value is the capacity of a transmission line.
6. The image compression apparatus as claimed in claim 3, wherein the reference value is the type of an image display apparatus.
7. The image compression apparatus as claimed in claim 3, wherein the reference value is display resolution.
8. The image compression apparatus as claimed in claim 3, wherein the reference

value is the processing speed of an image display apparatus.

9. The image compression apparatus as claimed in claim 3, further comprising:
an embedding unit to embed the corresponding relation between the reference value and the code size into the generated code.

10. An image compression apparatus comprising:
a dividing unit to divide image data into a plurality of segments;
a code size setting unit to set a code size corresponding to each segment;
a compression unit to compress the image data by adjusting the segments in accordance with the code size; and
a code generating unit to generate code by referring to the corresponding relation between the code size and the segments.

11. The image compression apparatus as claimed in claim 10, wherein the dividing unit includes a unit to divide the image data based on a tile, a precinct, or a code block.

12. The image compression apparatus as claimed in claim 10, wherein the segments are color components.

13. The image compression apparatus as claimed in claim 10, wherein the segments are resolutions.

14. The image compression apparatus as claimed in claim 10, wherein the segments are packets.

15. The image compression apparatus as claimed in claim 10, further comprising:
an embedding unit to embed the corresponding relation between the code size and the segment into the generated code.

16. An image decompression apparatus comprising:
a decompression unit to decompress the code generated from the image compression apparatus in claim 1.

17. An image decompression apparatus comprising:
a decompression unit to decompress the code generated from the image compression apparatus in claim 10.

18. The image decompression apparatus as claim in claim 16, wherein the decompression unit decompresses the code by referring to the corresponding relation between the code size and the reference value.

19. The image decompression apparatus as claimed in claim 17, wherein the decompression unit decompresses the code by referring to the corresponding relation between the code size and the reference value.

20. An image compression/decompression apparatus comprising:
an image compression apparatus having,
a code size setting unit to set one or more code sizes,
a compressing unit to compress an image that is divided into a plurality of image quality levels in accordance with the code sizes, and
a code generating unit to generate code being dividable into each code size;
and

a decompression unit to decompress the code generated in the code generating unit of the image compression apparatus.

21. An image compression/decompression apparatus comprising:
an image compression apparatus having,
a dividing unit to divide image data into a plurality of segments,
a code size setting unit to set a code size corresponding to each segment,
a compression unit to compress the image data by adjusting the segments in accordance with the code size, and
a code generating unit to generate code by referring to the corresponding relation between the code size and the segments; and
a decompression unit to decompress the code generated in the code generating unit of the image compression apparatus.

22. An image compression method comprising:
a) setting one or more code sizes;
b) compressing an image that is divided into a plurality of image quality levels in accordance with the code sizes; and
c) generating code being dividable into each code size.

23. The image compression method as claimed in claim 22, wherein the image quality level is a layer.

24. The image compression method as claimed in claim 22, further comprising:
d) setting a reference value corresponding to the code size.

25. The image compression method as claimed in claim 24, wherein the reference

value is the type of a transmission line.

26. The image compression method as claimed in claim 24, wherein the reference value is the capacity of a transmission line.

27. The image compression method as claimed in claim 24, wherein the reference value is the type of an image display apparatus.

28. The image compression method as claimed in claim 24, wherein the reference value is display resolution.

29. The image compression method as claimed in claim 24, wherein the reference value is the process speed of an image display apparatus.

30. The image compression method as claimed in claim 24, further comprising:
e) embedding the corresponding relation between the reference value and the code size into the generated code.

31. An image compression method comprising:
a) dividing image data into a plurality of segments;
b) setting a code size corresponding to each of the segments;
c) compressing the segments of the image data by adjusting the segments in accordance with the code size; and
d) generating code by referring to the corresponding relation between the code size and the segment.

32. The image compression method as claimed in claim 31, wherein dividing the

image data further includes dividing the image data based on a tile, a precinct, or a code block.

33. The image compression method as claimed in claim 31, wherein the segments are color components.

34. The image compression method as claimed in claim 31, wherein the segments are resolutions.

35. The image compression method as claimed in claim 31, wherein the segments are packets.

36. The image compression method as claimed in claim 31, further comprising:
e) embedding the corresponding relation between the code size and the segment into the generated code.

37. An image decompression method comprising:

a) decompressing the code generated from the image compression method in claim 22.

38. An image decompression method comprising:

a) decompressing the code generated from the image compression method in claim 31.

39. The image decompression method as claimed in claim 37, wherein the code is decompressed by referring to the corresponding relation between the code size and the reference value.

40. The image decompression method as claim in claim 38, wherein the code is

decompressed by referring to the corresponding relation between the code size and the segment.

41. An image compression/decompression method comprising:

- a) setting one or more code sizes;
- b) compressing an image that is divided into a plurality of image quality levels in accordance with the code sizes;
- c) generating code being dividable into each code size; and
- d) decompressing the code.

42. An image compression/decompression method comprising:

- a) dividing image data into a plurality of segments;
- b) setting a code size corresponding to each of the segments;
- c) compressing the segments of the image data by adjusting the segments in accordance with the code size;
- d) generating code by referring to the corresponding relation between the code size and the segment; and
- e) decompressing the code.

43. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, cause the system to perform a method comprising:

- a) setting one or more code sizes;
- b) compressing an image that is divided into a plurality of image quality levels in accordance with the code sizes; and
- c) generating code being dividable into each code size.

44. The article of manufacture as claimed in claim 43, wherein the method further comprises:

d) embedding the corresponding relation between the reference value and the code size into the generated code.

45. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, cause the system to perform a method comprising:

a) dividing image data into a plurality of segments;
b) setting a code size corresponding to each of the segments;
c) compressing the segments of the image data by adjusting the segments in accordance with the code size; and
d) generating code by referring to the corresponding relation between the code size and the segment.

46. The article of manufacture as claimed in claim 45, wherein dividing the image data further includes a function of dividing the image data based on a tile, a precinct, or a code block.

47. The article of manufacture as claimed in claim 45, wherein the method further comprises:

e) embedding the corresponding relation between the code size and the segment into the generated code.

48. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, cause the system to perform a method comprising:

a) decompressing the code generated from the program in claim 43.

49. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, causes the system to perform a method comprising:

a) decompressing the code generated from the program in claim 45.

50. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, cause the system to perform a method comprising:

a) setting one or more code sizes;

b) compressing an image that is divided into a plurality of image quality levels in accordance with the code sizes;

c) generating code being dividable into each code size; and

d) decompressing the code generated in function c).

51. An article of manufacture having one or more recordable media storing instructions thereon which, when executed by a system, cause the system to perform a method comprising:

a) dividing image data into a plurality of segments;

b) setting a code size corresponding to each of the segments;

c) compressing the segments of the image data by adjusting the segments in accordance with the code size;

d) generating code by referring to the corresponding relation between the code size and the segment; and

e) decompressing the code generated in function d).